

10/568805

1AP2005 2006 10 10 2006

CLAIMS

1. A nonaqueous electrolyte battery comprising:

5 a positive electrode (1) including a positive
electrode active material layer;

 a negative electrode (2) including a negative
electrode active material layer;

10 a nonaqueous electrolyte (5) substantially
constituted of only a solvent and a solute; and

15 a conducting material, contained in said positive
electrode active material layer and constituted of at
least one non-carbon material selected from a group
consisting of nitrides, carbides and borides, having
particles of at least 0.2 μm and not more than 5 μm in
average diameter easily dispersed into said positive
electrode active material layer, wherein

20 a positive electrode active material constituting
said positive electrode active material layer has a
layered rock salt structure, and

the filling density of said positive electrode active
material layer is at least 4.0 g/ml.

2.

25 3. (amended) The nonaqueous electrolyte battery according

to claim 1, wherein said positive electrode active material having a layered rock salt structure is constituted of a material containing at least either cobalt or nickel.

5

4. The nonaqueous electrolyte battery according to claim 1 or 3, wherein said conducting material includes a metal nitride.

10 5. The nonaqueous electrolyte battery according to claim 4, wherein said metal nitride includes zirconium nitride (ZrN or Zr_3N_2).

15 6. The nonaqueous electrolyte battery according to claim 5, wherein said zirconium nitride constituting said conducting material is contained in said positive electrode active material layer with a content of at least 1 mass % and not more than 20 mass %.

20 7. The nonaqueous electrolyte battery according to claim 1 or 3, wherein said conducting material includes a metal carbide.

25 8. The nonaqueous electrolyte battery according to claim 7, wherein said metal carbide includes tungsten carbide.

9. The nonaqueous electrolyte battery according to claim 7,
wherein said metal carbide includes tantalum carbide.

5 10. The nonaqueous electrolyte battery according to claim
7, wherein said metal carbide includes zirconium carbide.

10 11. The nonaqueous electrolyte battery according to any of
claim 1 and claims 3 to 10, further comprising a binder,
contained in said positive electrode active material layer,
including polymer fluoride.

15 12. The nonaqueous electrolyte battery according to claim
11, wherein said polymer fluoride includes polyvinylidene
fluoride.

13. The nonaqueous electrolyte battery according to claim
11 or 12, wherein said positive electrode is cylindrically
or angularly formed.

20

14. (deleted)

15. (deleted)

25 16. (deleted)

17. (deleted)